UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/421,846	10/20/1999	JEAN-MARC ANDREOLI	R/97005Q	4669

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OLFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA   22320

EXAMINER
BASHORE, WILLIAM L

ART UNIT	PAPER NUMBER
2176	

2176

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _31 July 2002_ .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-16_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _6_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   This action is responsive to communications: amendment filed 7/31/2002, to the original

application filed 10/20/1999, with a foreign priority filing date of **4/23/1997**. IDS filed 10/19/2000.

2.   The Constraint Agent reference from IDS filed 10/19/2000 has been considered by the examiner.

3.   The Specification remains objected to as failing to provide proper antecedent basis for the

claimed subject matter (see Response To Arguments).

4.   The objections to the disclosure regarding reference of copending applications, hyperlinks, and

impermissible information has been withdrawn as necessitated by amendment.

5.   Claims 1-16 remain rejected under 35 U.S.C. 112, first paragraph as containing subject matter

which was not described in the specification in such a way as to enable one skilled in the art to which it

pertains, or with which it is most nearly connected, to make and/or use the invention.

6.   The rejection of claims 1-5, 8, 13-16 under 35 U.S.C. 103(a) as being unpatentable over

Rubinstein'233 has been withdrawn as necessitated by amendment.

7.   The rejection of claims 6-7 under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233,

and Karnik has been withdrawn as necessitated by amendment.

8.   The rejection of claims 9-12 under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233 ,

and Rubinstein '897 has been withdrawn as necessitated by amendment.

9.   Claims 1-16 are pending. Claims 1, 13 are independent claims.

Specification

10.   The specification is objected to as failing to provide proper antecedent basis for the claimed

subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Applicant appears to be disclosing a method of obtaining document constraint descriptors from

analysis of logical relations equivalent to received attribute-value relations. However, Applicant's

disclosure is insufficient to teach one skilled in the pertinent art a method of making and using Applicant's

invention without undo experimentation. In addition, the Examiner cannot find any disclosure regarding

a specific example (from start to finish) of Applicant's invention within said disclosure. It is noted that

a substantial portion of said disclosure describes known processes (i.e. "Knowledge Brokers, and Feature

Constraints"). Although informative, the distinction between said descriptions and what Applicant

specifically describes as his/her invention is unclear (see Response To Arguments). Applicant is advised

against the addition of new matter.

Claim Rejections - 35 USC § 112

11.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making
and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
contemplated by the inventor of carrying out his invention.

12.   **Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter**

which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention.

13.   **In regard to independent claims 1, 13**, the limitations of obtaining document constraint

descriptors from analysis of logical relations equivalent to received attribute-value relations, including

sorts and features, are not enabled in the specification (see also objection above). Applicant is advised

against the addition of new matter.

14.   **In regard to dependent claims 2-12, 14-16**, claims 2-12, 14-16 are rejected for fully

incorporating the deficiencies of their respective base claims.

Examiner's Note

15.   The following rejections are based upon the Examiner's interpretation of obtaining document

constraint descriptors from analysis of logical relations equivalent to received attribute-value relations, as

constraints drawn from user combinations of searchable keywords forming logical relations including

feature constraints, and sorting of results.

Claim Rejections - 35 USC § 103

16.   **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness**

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

17.   **Claims 1-5, 8, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Rubinstein (hereinafter Rubinstein '233), U.S. Patent No. 5,794, 233 issued August 1998, in view of

Wilson et al. (hereinafter Wilson), U.S. Patent No. 5,963,938 issued October 1999.

In regard to independent claim 1, Rubinstein '233 teaches:

Obtaining document constraint descriptors via logical combinations of keywords searchable in documents (Rubinstein '233 Abstract, Figure 2 item 250; compare with claim 1 "*A method for obtaining document constraint descriptors....the method comprising*").

Attribute values as disclosed by relevance codes associated with keywords, said codes ranking the importance of each keyword, with said keywords used in forming logical relation queries for searching documents (Rubinstein '233 Figure 2 item 206, 208, 250, column 3 lines 34-44, column 4 lines 4-10; compare with claim 1 "*receiving ....attribute -value relations that can apply to documents*").

Obtaining logical relations via inclusion of keywords into logic panes to produce logically joined expressions (Rubinstein '233 Figure 2 item 242, 246, column 4 lines 17-30; compare with claim 1 "*using....to obtain logical relations equivalent to the attribute-value relations*").

Using said logically joined expressions to obtain a displayed constraint descriptor set as applied for document searching (Rubinstein '233 Figure 2 item 250, column 4 lines 49-56; compare with claim 1 "*using the logical relations to obtain a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations.*").

The limitation of user signals would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Rubinstein '233, because Rubinstein '233 teaches keyword selection using "drag and drop" (Rubinstein '233 column 4 lines 10-16), as well as input fields for entering data (Rubinstein '233 Figure 2 items 215, 250), clearly suggest user signals, providing Rubinstein '233 the capability and advantage of user interactivity (compare with claim 1 "*user signals*").

Rubinstein'233 teaches a query input indicative of a logical relation and a feature (Rubinstein'233 Figure 2 item 250; compare with claim 1 "*a feature*"). Rubinstein'233 does not specifally teach a sort. However, Wilson teaches selection of arguments, operations, and relations, said

logical function may be sorting, or other operation (Wilson column 3 lines 45-55; compare with claim 1

"*one of a sort*"). It would have been obvious to one of ordinary skill in the art at the time of the invention

to apply Wilson to Rubinstein'233, providing Rubinstein'233 the benefit of incorporating sorts for

convenient arrangement of related/ranked results.

Rubinstein'233 does not specifically teach obtaining descriptors without user intervention.

However, Wilson teaches a query interface encompassing Boolean operators for relating logical

operations. Subsequent to a user changing an operator, Wilson automatically makes necessary changes

and divisions in Boolean groupings within relations, resulting in constraints (Wilson column 7 lines 12-

21, column 12 lines 34-48; compare with claim 1 "*without user intervention*"). It would have been

obvious to one of ordinary skill in the art at the time of the invention to apply Wilson to Rubinstein.233,

providing Rubinstein'233 the benefit of automatic modification of relations to match user changes.

In regard to dependent claim 2, Rubinstein '233 teaches a cursor control device, as well as a

mouse and keyboard for a user to use in order to create logical relations (Rubinstein '233 Figure 4 item

406, column 7 lines 55-60; compare with claim 2).

In regard to dependent claims 3, 4, 5, Rubinstein '233 teaches a computer with a cursor control

device, as well as a mouse and keyboard for a user to use in order to create logical relations

(Rubinstein '233 Figure Figure 4 item 406, column 7 lines 55-60; compare with claims 3, 4, 5).

In regard to dependent claim 8, Rubinstein '233 teaches presenting a graphical user interface

image allowing a user to create a logical query, said image including presentation of a document

constraint descriptor (Rubinstein '233 Figure 2 item 200, 250; compare with claim 8). In addition,

Rubinstein '233 teaches a computer with RAM memory for storing data (Rubinstein '233 column 7 lines 49-53).

In regard to independent claim 13, Rubinstein '233 teaches:

Obtaining document constraint descriptors via logical combinations of keywords searchable in documents (Rubinstein '233 Abstract, Figure 2 item 250; compare with claim 13 "*A machine for obtaining document constraint descriptors....the machine comprising*").

A processor, and a graphical user interface (Rubinstein '233 column 7 lines 41-48, Figure 2,3; compare with claim 13 "*a processor; and user interface circuitry for providing user signals to the processor*").

Attribute values as disclosed by relevance codes associated with keywords, said codes ranking the importance of each keyword, with said keywords used in forming logical relation queries for searching documents (Rubinstein '233 Figure 2 item 206, 208, 250, column 3 lines 34-44, column 4 lines 4-10; compare with claim 13 "*receiving ....attribute -value relations that can apply to documents*").

Obtaining logical relations via inclusion of keywords into logic panes to produce logically joined expressions (Rubinstein '233 Figure 2 item 242, 246, column 4 lines 17-30; compare with claim 13 "*using....to obtain logical relations equivalent to the attribute-value relations*").

Using said logically joined expressions to obtain a displayed constraint descriptor set as applied for document searching (Rubinstein '233 Figure 2 item 250, column 4 lines 49-56; compare with claim 13 "*using the logical relations to obtain a document constraint descriptor defining a set of one or more constraints equivalent to the logical relations.*").

Rubinstein'233 teaches a query input indicative of a logical relation and a feature (Rubinstein'233 Figure 2 item 250; compare with claim 13 "*a feature*"). Rubinstein'233 does not specifally teach a sort. However, Wilson teaches selection of arguments, operations, and relations, said

logical function may be sorting, or other operation (Wilson column 3 lines 45-55; compare with claim 13

"one of a sort"). It would have been obvious to one of ordinary skill in the art at the time of the invention

to apply Wilson to Rubinstein'233, providing Rubinstein'233 the benefit of incorporating sorts for

convenient arrangement of related/ranked results.

The limitation of user signals would have been obvious to one of ordinary skill in the art at the

time of the invention, in view of Rubinstein '233, because Rubinstein '233 teaches keyword selection

using "drag and drop" (Rubinstein '233 column 4 lines 10-16), as well as input fields for entering data

(Rubinstein '233 Figure 2 items 215, 250), clearly suggest user signals, providing Rubinstein '233 the

capability and advantage of user interactivity (compare with claim 13 *"user signals"*).

In regard to dependent claim 14, Rubinstein '233 teaches a general purpose microcomputer

(Rubinstein '233 column 7 lines 41-43; compare with claim 14).

In regard to dependent claims 15, 16, Rubinstein '233 teaches creation of a logical relation

query, resulting in a subset of returned documents (Rubinstein Abstract, column 5 lines 54-61; compare

with claim 15

Rubinstein '233 teaches presenting a graphical user interface image allowing a user to create a

logical query, said image including presentation of a document constraint descriptor, said image also

including a document file with a displayed portion (Rubinstein '233 Figure 2 item 200, 221, 250, 270;

compare with claim 16).

18.   **Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein '233,**

and Wilson as applied to claim 1 above, and further in view of Karnik, U.S. Patent No. 5,404,294

issued April 1995.

In regard to dependent claims 6-7, Rubinstein '233 does not specifically teach input of a

medium (i.e. paper form) via scanner, said medium containing printed values filled in by a user, wherein

said values are subsequently read and analyzed. However, Karnik teaches a human readable pre-printed

IRS form with values filled in by a user. The form is scanned, the values are read, and a mathematical

formula is applied to certain inputted values (Karnik Figure 5, column 1 lines 53-57, 64-67, column 3

lines 60-64, column 6 lines 8-17; compare with claims 6-7). It would have been obvious to one of

ordinary skill in the art at the time of the invention to apply Karnik to Rubinstein '233, providing

Rubinstein '233 the capability of querying data from inputted IRS forms for statistical purposes.

19.   **Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubinstein**

'233, and Wilson as applied to claim 1 above, and further in view of Rubinstein (hereinafter

Rubinstein '897), U.S. Patent No. 5,721,897 issued February 1998.

In regard to dependent claim 9, Rubinstein '233 does not specifically teach a network.

However, Rubinstein '897 teaches creating logical relations utilizing the Internet, which is indicative of a

network (Rubinstein '897 column 12 lines 40-47; compare with claim 9). It would have been obvious to

on of ordinary skill in the art at the time of the invention to apply Rubinstein '897 to Rubinstein '233,

providing Rubinstein '233 the capability of gathering data and communication with a plurality of users

during a session.

In regard to dependent claims 10-12, Rubinstein '233 teaches presenting a graphical user

interface image allowing a user to create a logical query, said image including presentation of a

document constraint descriptor, said image including document references, portions of are displayed.

Rubinstein '233 also teaches a printer (Rubinstein '233 Figure 2 item 200, 221,250, 270, column 8 lines

1-3; compare with claims 10-12).

20.   **Prior art made of record and not relied upon is considered pertinent to disclosure.**

Liu, Jane W. S., Algorithms for parsing search queries in systems with inverted file organization, ACM Transactions on Database Systems, December 1976, Volume 1, Issue 4, pages 299-316.

Response to Arguments

21.   Applicant's arguments filed 7/31/2002 have been fully and carefully considered but they are not

persuasive.

Regarding Applicant's IDS (page 7 of the amendment), the examiner cannot find Applicant's

submission of partially initialed Form PTO-1449. However, the examiner has included a revised and

initialed copy of said form (paper 6). Applicant's representative is thanked for her efforts.

Applicant argues on page 8 of the amendment that the examiner agrees that the specification

sufficiently teaches one skilled in the art a method of making and using Applicant's claimed invention

without undo experimentation. The examiner respectfully disagrees that an agreement was reached on this

matter. During the interview, Applicant's representative presented various figures of the specification, in

particular, Figure 5 of the disclosure, which purports to shed light on the invention. If this is indeed

Applicant's invention, then said figure(s) must be supported by a written description. There appears to be

no specific example of Applicant's invention. A mere description of the figures does not, by itself,

disclose Applicant's invention.

Applicant argues on page 8 of the amendment that the general objection to the specification is

improper because the examiner has not provided specific assertions regarding alleged insufficiency of the

disclosure. The examiner notes that the disclosure is insufficient because it is unclear what Applicant's

invention is. The disclosure is replete with references and descriptions of prior art and known methods.

The distinction between these references/descriptions, and what Applicant describes as his/her invention

is unclear, rendering it difficult for one of ordinary skill in the art to recreate Applicant's invention

without undo experimentation, using the specification as a guide. No specific example, from start to

finish, of Applicant's invention can be found in the specification.

Applicant argues on pages 8-9 of the amendment that the rejection of claims 1-6 under 35 U.S.C.

112 first paragraph should be withdrawn. The examiner notes that the rejections are based upon non-

enablement of the claims in the specification, as defined by the examiner's objection set forth above.

Applicant argues on pages 9-10 of the amendment that Rubinstein'233 does not specifically teach

the claimed limitations. The examiner notes that a user constructs a Boolean based query. Rubinstein'233

teaches attribute values as disclosed by relevance codes associated with keywords, and formation of

logical relation queries. Wilson teaches automatic modification of Boolean relations so as to coincide

with user modification of input (new Boolean groupings are divided/formed without user intervention).

Conclusion

22.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set

forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing

date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the mailing date of this final action.

23.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to William Bashore whose telephone number is **(703) 308-5807**. The examiner can

normally be reached on Monday through Friday from 11:30 AM to 8:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Heather Herndon, can be reached on **(703) 308-5186**.

Any inquiry of a general nature or relating to the status of this application should be directed to

the Group receptionist whose telephone number is **(703) 305-3900**.

24.   **Any response to this action should be mailed to:**

>   Commissioner of Patents and Trademarks
>   Washington, D.C. 20231

or faxed to:

>   **(703) 746-7239** (for formal communications intended for entry)
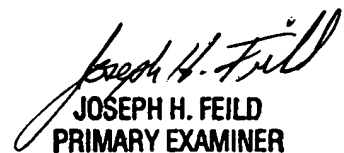
or:

>   **(703) 746-7240** (for informal or draft communications, please label
>   "PROPOSED" or "DRAFT")

or:

>   **(703) 746-7238** (for after-final communications)

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Fourth Floor (Receptionist).**

William L. Bashore
10/16/2002

**JOSEPH H. FEILD
PRIMARY EXAMINER**